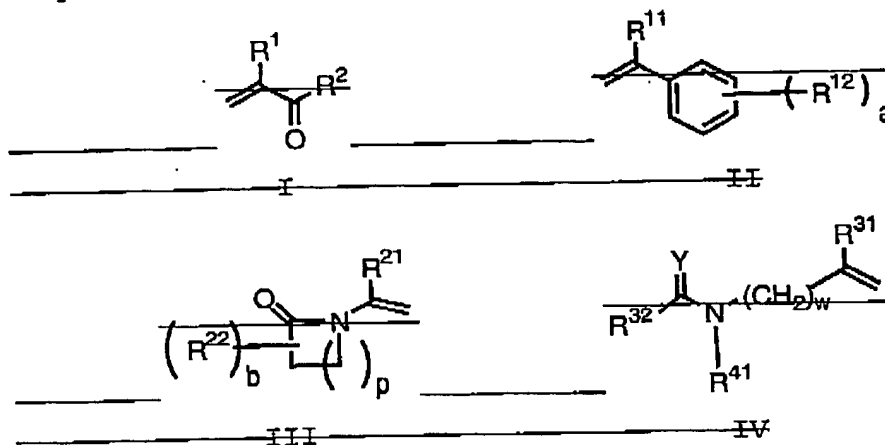


LISTING OF THE CLAIMS

1. (Currently Amended). An antimicrobial lens comprising silver and a polymer comprising a monomer of Formula I, II, III or IV



wherein

R^1 is hydrogen or C_{1-6} alkyl;

R^2 is OR^3 , NHR^3 , $\text{S}(\text{CH}_2)_d\text{R}^3$, or $(\text{CH}_2)_d\text{R}^3$, wherein

d is 0-8;

R^3 is substituted C_{1-6} alkyl

where the alkyl substituents are selected from one or more members of the group consisting of carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C_{1-6} alkyldisulfide, C_{1-6} alkylsulfide, phenyldisulfide, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted C_{1-6} alkylurea, substituted phenylurea, substituted C_{1-6} alkylthiourea, and substituted phenylthiourea

wherein the C_{1-6} alkyldisulfide, phenyldisulfide, C_{1-6} alkylurea, C_{1-6} alkylthiourea, phenylurea, and

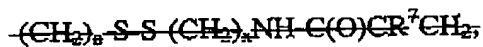
phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



wherein R⁴, R⁵, and R⁶ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl;

q is 1-6, and

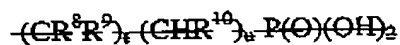
m is 0-6;



wherein R⁷ is hydrogen or C₁₋₆alkyl;

n is 1-6, and

x is 1-6;



wherein R⁸, R⁹, and R¹⁰ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and

C₁₋₆alkyl;

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthalenyl;

quinolinyl;

indolyl;

~~thiadiazolyl;~~
~~triazolyl;~~
~~4-methylpiperidin-1-yl;~~
~~4-methylpiperazin-1-yl;~~
~~substituted phenyl;~~
~~substituted benzyl;~~
~~substituted pyridinyl;~~
~~substituted pyrimidinyl;~~
~~substituted pyrazinyl;~~
~~substituted benzimidazolyl;~~
~~substituted benzothiazolyl;~~
~~substituted benzotriazolyl;~~
~~substituted naphthalenyl;~~
~~substituted quinolinyl;~~
~~substituted indolyl;~~
~~substituted thiadiazolyl;~~
~~substituted triazolyl;~~
~~substituted 4-methylpiperidin-1-yl; or~~
~~substituted 4-methylpiperazin-1-yl;~~

~~wherein the substituents are selected from one or more~~
~~members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl,~~
~~halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic~~
~~acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,~~
~~N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl,~~
~~N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,~~
~~N-(aminopyrazine)carbonyl,~~
~~N-(2-aminopyrimidine)phosphonyl,~~
~~N-(2-aminopyridine)phosphonyl,~~
~~N-(aminopyrazine)phosphonyl,~~
~~N-(aminobenzimidazolyl)sulfonyl,~~
~~N-(aminobenzothiazolyl)sulfonyl,~~

~~N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,~~
~~N-(aminothiazolyl)sulfonyl,~~
~~N-(aminotriazolyl)sulfonyl,~~
~~N-(amino 4-methylpiperidinyl)sulfonyl,~~
~~N-(amino 4-methylpiperazinyl)sulfonyl,~~
~~N-(aminobenzimidazolyl)carbonyl,~~
~~N-(aminobenzothiazolyl)carbonyl,~~
~~N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,~~
~~N-(aminothiazolyl)carbonyl,~~
~~N-(aminotriazolyl)carbonyl,~~
~~N-(amino 4-methylpiperidinyl)carbonyl,~~
~~N-(amino 4-methylpiperazinyl)carbonyl,~~
~~N-(2-aminobenzimidazolyl)phosphonyl,~~
~~N-(2-aminobenzothiazolyl)phosphonyl,~~
~~N-(2-aminobenzotriazolyl)phosphonyl,~~
~~N-(2-aminoindolyl)phosphonyl,~~
~~N-(2-aminothiazolyl)phosphonyl,~~
~~N-(2-aminotriazolyl)phosphonyl,~~
~~N-(amino 4-methylpiperidinyl)phosphonyl,~~
~~N-(amino 4-methylpiperazinyl)phosphonyl, acetamide, nitrile,~~
~~thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,~~
~~urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,~~
~~phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted~~
~~phenyldisulfide, substituted C₁₋₆alkylurea, substituted~~
~~C₁₋₆alkylthiourea, substituted phenylurea, and substituted~~
~~phenylthiourea~~

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
 C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
 phenylthiourea substituents are selected from the group
 consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,

~~carboxylic acid, sulfonic acid, phosphonic acid, amine,
amidine, acetamide, and nitrile;~~

~~a is 1-5;~~

~~R¹¹ is hydrogen or C₁₋₆alkyl;~~

~~R¹² is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, acetamide;~~

~~thioC₁₋₆alkylcarbonyl, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide;~~

~~urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea;~~

~~-OR¹³, NH-R¹³, -S-(CH₂)_d-R¹³, -(CH₂)_d-R¹³, -C(O)NH-(CH₂)_d-R¹³, -C(O)-~~

~~-(CH₂)_d-R¹³; substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide,~~

~~substituted C₁₋₆alkylurea, substituted phenylurea, substituted phenylthiourea or~~

~~substituted C₁₋₆alkylthiourea wherein the substituents are selected from the~~

~~group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid;~~

~~sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;~~

~~where~~

~~d is 0-8;~~

~~R¹³ is thioC₁₋₆alkylcarbonyl;~~

~~— substituted C₁₋₆alkyl~~

~~where the alkyl substituents are selected from one or more
members of the group consisting of hydroxyl, carboxylic acid,
sulfonic acid, phosphonic acid, amine, amidine, acetamide,
nitrile, thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide,
phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea,
C₁₋₆alkylthiourea, phenylthiourea, substituted
C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted
C₁₋₆alkylurea, substituted phenylurea, substituted
C₁₋₆alkylthiourea and substituted phenylthiourea~~

~~wherein the C₁₋₆alkyldisulfide, phenyldisulfide,~~

~~C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and~~

~~phenylthiourea substituents are selected from the group~~

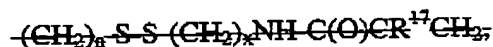
~~consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,~~

~~carboxylic acid, sulfonic acid, phosphonic acid, amine,~~

~~amidine, acetamide, and nitrile;~~



where R^{14} , R^{15} , and R^{16} are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C_{1-6} alkyl;
 q is 1-6, and
 m is 0-6;



where R^{17} is hydrogen or C_{1-6} alkyl;
 n is 1-6, and
 x is 1-6;



where R^{18} , R^{19} , and R^{20} are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C_{1-6} alkyl;
 t is 1-6, and
 u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;

4-methylpiperazin-1-yl;

~~substituted phenyl;~~
~~substituted benzyl;~~
~~substituted pyridinyl;~~
~~substituted pyrimidinyl;~~
~~substituted pyrazinyl;~~
~~substituted benzimidazolyl;~~
~~substituted benzothiazolyl;~~
~~substituted benzotriazolyl;~~
~~substituted naphthaloyl;~~
~~substituted quinolinyl;~~
~~substituted indolyl;~~
~~substituted thiadiazolyl;~~
~~substituted triazolyl;~~
~~substituted 4-methylpiperidin-1-yl; or~~
~~substituted 4-methylpiperazin-1-yl~~

~~wherein the substituents are selected from one or more~~
~~members of the group consisting of C₁₋₆ alkyl, haloC₁₋₆ alkyl,~~
~~halogen, sulfonic acid, phosphonic acid, hydroxyl, carbonyl,~~
~~acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,~~
~~N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl,~~
~~N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,~~
~~N-(aminopyrazine)carbonyl,~~
~~N-(2-aminopyrimidine)phosphonyl,~~
~~N-(2-aminopyridine)phosphonyl,~~
~~N-(aminopyrazine)phosphonyl,~~
~~N-(aminobenzimidazolyl)sulfonyl,~~
~~N-(aminobenzothiazolyl)sulfonyl,~~
~~N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,~~
~~N-(aminothiazolyl)sulfonyl,~~
~~N-(aminotriazolyl)sulfonyl,~~
~~N-(amino-4-methylpiperidinyl)sulfonyl,~~

~~N-(4-amino-4-methylpiperazinyl)sulfonyl,~~
~~N-(aminobenzimidazolyl)carbonyl,~~
~~N-(aminobenzothiazolyl)carbonyl,~~
~~N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,~~
~~N-(aminothiazolyl)carbonyl,~~
~~N-(aminotriazolyl)carbonyl,~~
~~N-(4-amino-4-methylpiperidinyl)carbonyl,~~
~~N-(4-amino-4-methylpiperazinyl)carbonyl,~~
~~N-(2-aminobenzimidazolyl)phosphonyl,~~
~~N-(2-aminobenzothiazolyl)phosphonyl,~~
~~N-(2-aminobenzotriazolyl)phosphonyl,~~
~~N-(2-aminoindolyl)phosphonyl,~~
~~N-(2-aminothiazolyl)phosphonyl,~~
~~N-(2-aminotriazolyl)phosphonyl,~~
~~N-(4-amino-4-methylpiperidinyl)phosphonyl,~~
~~N-(4-amino-4-methylpiperazinyl)phosphonyl, acetamide, nitrile,~~
~~thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,~~
~~urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,~~
~~phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted~~
~~phenyldisulfide, substituted C₁₋₆alkylurea, substituted~~
~~C₁₋₆alkylthiourea, substituted phenylurea, and substituted~~
~~phenylthiourea~~

wherein the ~~C₁₋₆alkyldisulfide, phenyldisulfide,~~
~~C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and~~
~~phenylthiourea substituents are selected from the group~~
~~consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,~~
~~carboxylic acid, sulfonic acid, phosphonic acid, amine,~~
~~amidino, acetamide, and nitrile;~~

~~b is 1-5;~~

~~p is 1-5;~~

~~R²¹ is hydrogen;~~

R^{23} is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, thio C_{1-6} alkylcarbonyl, thio C_{1-6} alkylaminocarbonyl, C_{1-6} alkyldisulfide, phenyldisulfide, $C(O)NH(CH_2)_{1-6}SO_3H$, $C(O)NH(CH_2)_{1-6}P(O)(OH)_2$, CR^{23} , $NH-R^{23}$, $C(O)NH(CH_2)_4-R^{23}$, $S(CH_2)_4-R^{23}$, $(CH_2)_4-R^{23}$, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted C_{1-6} alkylurea, substituted, C_{1-6} alkylthiourea substituted phenylurea or substituted phenylthiourea wherein the substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile,

where

d is 0-8;

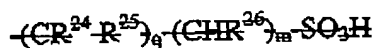
R^{23} is thio C_{1-6} alkylcarbonyl,

C_{1-6} alkyl,

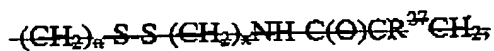
substituted C_{1-6} alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C_{1-6} alkyldisulfide, C_{1-6} alkylsulfide, phenyldisulfide, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted C_{1-6} alkylurea, substituted phenylurea, substituted C_{1-6} alkylthiourea, and substituted phenylthiourea

wherein the C_{1-6} alkyldisulfide, phenyldisulfide, C_{1-6} alkylurea, C_{1-6} alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R^{24} , R^{25} , and R^{26} are independently selected from the
 group consisting of hydrogen, halogen, hydroxyl, and
 C_{1-6} alkyl;
 q is 1-6, and
 m is 0-6



where R^{27} is hydrogen or C_{1-6} alkyl;
 n is 1-6, and
 x is 1-6;



where R^{28} , R^{29} , and R^{30} are independently selected from the
 group consisting of hydrogen, halogen, hydroxyl, and
 C_{1-6} alkyl;
 t is 1-6, and
 u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthalenyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;

4-methylpiperazin-1-yl;

~~substituted phenyl;~~
~~substituted benzyl;~~
~~substituted pyridinyl;~~
~~substituted pyrimidinyl;~~
~~substituted pyrazinyl;~~
~~substituted benzimidazolyl;~~
~~substituted benzothiazolyl;~~
~~substituted benzotriazolyl;~~
~~substituted naphthaloyl;~~
~~substituted quinolinyl;~~
~~substituted indolyl;~~
~~substituted thiadiazolyl;~~
~~substituted triazolyl;~~
~~substituted 4-methylpiperidin-1-yl; or~~
~~substituted 4-methylpiperazin-1-yl;~~

~~wherein the substituents are selected from one or more~~
~~members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl,~~
~~halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic~~
~~acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,~~
~~N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl;~~
~~N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,~~
~~N-(aminopyrazine)carbonyl,~~
~~N-(2-aminopyrimidine)phosphonyl,~~
~~N-(2-aminopyridine)phosphonyl,~~
~~N-(aminopyrazine)phosphonyl,~~
~~N-(aminobenzimidazolyl)sulfonyl,~~
~~N-(aminobenzothiazolyl)sulfonyl,~~
~~N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,~~
~~N-(aminothiazolyl)sulfonyl,~~
~~N-(aminotriazolyl)sulfonyl,~~
~~N-(amino-4-methylpiperidinyl)sulfonyl;~~

~~N-(amino-4-methylpiperazinyl)sulfonyl;~~
~~N-(aminobenzimidazolyl)carbonyl;~~
~~N-(aminobenzothiazolyl)carbonyl;~~
~~N-(aminobenzotriazolyl)carbonyl;~~ ~~N-(aminoindolyl)carbonyl;~~
~~N-(aminothiazolyl)carbonyl;~~
~~N-(aminotriazolyl)carbonyl;~~
~~N-(amino-4-methylpiperidinyl)carbonyl;~~
~~N-(amino-4-methylpiperazinyl)carbonyl;~~
~~N-(2-aminobenzimidazolyl)phosphonyl;~~
~~N-(2-aminobenzothiazolyl)phosphonyl;~~
~~N-(2-aminobenzotriazolyl)phosphonyl;~~
~~N-(2-aminoindolyl)phosphonyl;~~
~~N-(2-aminothiazolyl)phosphonyl;~~
~~N-(2-aminotriazolyl)phosphonyl;~~
~~N-(amino-4-methylpiperidinyl)phosphonyl;~~
~~N-(amino-4-methylpiperazinyl)phosphonyl;~~ ~~acetamide;~~ ~~nitrile;~~
~~thiol;~~ ~~C₁₋₆alkyldisulfide;~~ ~~C₁₋₆alkylsulfide;~~ ~~phenyldisulfide;~~
~~urea;~~ ~~C₁₋₆alkylurea;~~ ~~phenylurea;~~ ~~thiourea;~~ ~~C₁₋₆alkylthiourea;~~
~~phenylthiourea;~~ ~~substituted C₁₋₆alkyldisulfide;~~ ~~substituted~~
~~phenyldisulfide;~~ ~~substituted C₁₋₆alkylurea;~~ ~~substituted~~
~~C₁₋₆alkylthiourea;~~ ~~substituted phenylurea;~~ ~~and substituted~~
~~phenylthiourea~~

wherein the ~~C₁₋₆alkyldisulfide;~~ ~~phenyldisulfide;~~
~~C₁₋₆alkylurea;~~ ~~C₁₋₆alkylthiourea;~~ ~~phenylurea;~~ and
~~phenylthiourea~~ substituents are selected from the group
 consisting of ~~C₁₋₆alkyl;~~ ~~haloC₁₋₆alkyl;~~ ~~halogen;~~ ~~hydroxyl;~~
~~carboxylic acid;~~ ~~sulfonic acid;~~ ~~phosphonic acid;~~ ~~amine;~~
~~amidine;~~ ~~acetamide;~~ and ~~nitrile;~~

~~w is 0-1;~~

~~Y is oxygen or sulfur;~~

~~R³⁴ is hydrogen or C₁₋₆alkyl;~~

R^{33} is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, thio C_{1-6} alkylcarbonyl, thio C_{1-6} alkylaminocarbonyl, $C(O)NH(CH_2)_d-R^{33}$, $-OR^{33}$, $-NHR^{33}$, $-S(CH_2)_d-R^{33}$, $-(CH_2)_d-R^{33}$, C_{1-6} alkyldisulfide, phenyldisulfide, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, C_{1-6} alkylamine, phenylamine, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted phenylurea, substituted C_{1-6} alkylamine, substituted phenylamine, substituted phenylthiourea, substituted C_{1-6} alkylurea or substituted C_{1-6} alkylthiourea wherein the substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile

where

d is 0-8;

R^{33} is thio C_{1-6} alkylcarbonyl,

C_{1-6} alkyl,

substituted C_{1-6} alkyl

where the alkyl substituents are selected from one or

more members of the group consisting of C_{1-6} alkyl, halo

C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic

acid, phosphonic acid, amine, amidine, acetamide,

nitrile, thiol, C_{1-6} alkyldisulfide, C_{1-6} alkylsulfide,

phenyldisulfide, urea, C_{1-6} alkylurea, phenylurea,

thiourea, C_{1-6} alkylthiourea, phenylthiourea, substituted

C_{1-6} alkyldisulfide, substituted phenyldisulfide,

substituted C_{1-6} alkylurea, substituted phenylurea,

substituted C_{1-6} alkylthiourea or substituted

phenylthiourea

wherein the C_{1-6} alkyldisulfide, phenyldisulfide,

C_{1-6} alkylurea, C_{1-6} alkylthiourea, phenylurea, and

phenylthiourea substituents are selected from the group

consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl,

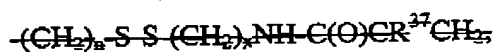
carboxylic acid, sulfonic acid, phosphonic acid, amine,
amidine, acetamide, and nitrile;



where R^{34} , R^{35} , and R^{36} are independently selected from the
group consisting of hydrogen, halogen, hydroxyl, and
 C_{1-6} alkyl;

q is 1-6, and

m is 0-6;



where R^{37} is hydrogen or C_{1-6} alkyl;

n is 1-6, and

x is 1-6;



where R^{38} , R^{39} , and R^{40} are independently selected from the
group consisting of hydrogen, halogen, hydroxyl, and
 C_{1-6} alkyl;

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

~~4-methylpiperidin-1-yl;~~
~~4-methylpiperazin-1-yl;~~
~~substituted phenyl;~~
~~substituted benzyl;~~
~~substituted pyridinyl;~~
~~substituted pyrimidinyl;~~
~~substituted pyrazinyl;~~
~~substituted benzimidazolyl;~~
~~substituted benzothiazolyl;~~
~~substituted benzotriazolyl;~~
~~substituted naphthaloyl;~~
~~substituted quinolinyl;~~
~~substituted indolyl;~~
~~substituted thiadiazolyl;~~
~~substituted triazolyl;~~
~~substituted 4-methylpiperidin-1-yl; or~~
~~substituted 4-methylpiperazin-1-yl;~~

~~wherein the substituents are selected from one or more~~
~~members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl,~~
~~halogen, sulfonic acid, phosphonic acid, hydroxyl, carbonyl,~~
~~acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,~~
~~N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl,~~
~~N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,~~
~~N-(aminopyrazine)carbonyl,~~
~~N-(2-aminopyrimidine)phosphonyl,~~
~~N-(2-aminopyridine)phosphonyl,~~
~~N-(aminopyrazine)phosphonyl,~~
~~N-(aminobenzimidazolyl)sulfonyl,~~
~~N-(aminobenzothiazolyl)sulfonyl,~~
~~N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,~~
~~N-(aminothiazolyl)sulfonyl,~~

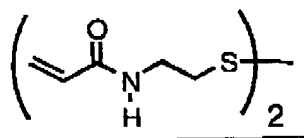
~~N-(aminotriazolyl)sulfonyl,~~
~~N-(amino-4-methylpiperidinyl)sulfonyl,~~
~~N-(amino-4-methylpiperazinyl)sulfonyl,~~
~~N-(aminobenzimidazolyl)carbonyl,~~
~~N-(aminobenzothiazolyl)carbonyl,~~
~~N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,~~
~~N-(aminothiazolyl)carbonyl,~~
~~N-(aminotriazolyl)carbonyl,~~
~~N-(amino-4-methylpiperidinyl)carbonyl,~~
~~N-(amino-4-methylpiperazinyl)carbonyl,~~
~~N-(2-aminobenzimidazolyl)phosphonyl,~~
~~N-(2-aminobenzothiazolyl)phosphonyl,~~
~~N-(2-aminobenzotriazolyl)phosphonyl,~~
~~N-(2-aminoindolyl)phosphonyl,~~
~~N-(2-aminothiazolyl)phosphonyl,~~
~~N-(2-aminotriazolyl)phosphonyl,~~
~~N-(amino-4-methylpiperidinyl)phosphonyl,~~
~~N-(amino-4-methylpiperazinyl)phosphonyl, acetamide, nitrile,~~
~~thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,~~
~~urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,~~
~~phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted~~
~~phenyldisulfide, substituted C₁₋₆alkylurea, substituted~~
~~C₁₋₆alkylthiourea, substituted phenylurea, and substituted~~
~~phenylthiourea~~

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
 C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
 phenylthiourea substituents are selected from the group
 consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,
 carboxylic acid, sulfonic acid, phosphonic acid, amine,
 amidine, acetamide, and nitrile;

~~R⁴¹ is hydrogen, C₁₋₆alkyl, phenyl, C₁₋₆alkylcarbonyl, phenylcarbonyl, substituted C₁₋₆alkyl, substituted phenyl, substituted C₁₋₆alkylcarbonyl or substituted phenylcarbonyl;~~

~~— wherein~~

~~— the substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;~~

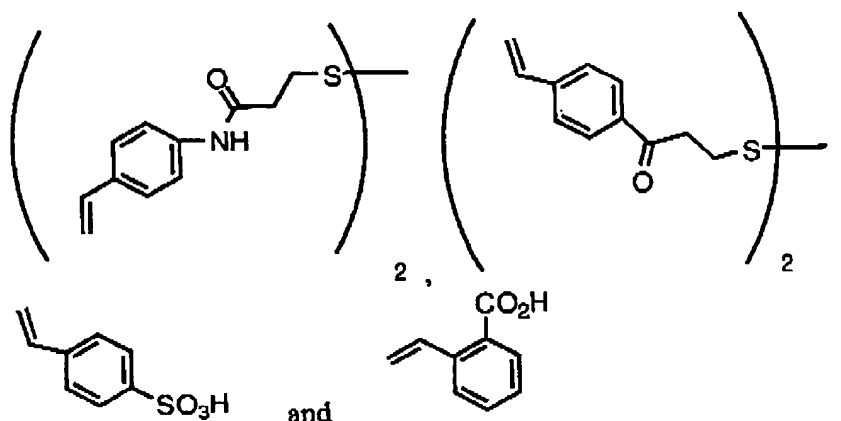


~~wherein said silver reversibly binds to said monomer.~~

2. (Canceled)
3. (Canceled)
4. (Currently Amended) The antimicrobial lens of claim 21 wherein the lens is a soft contact lens.
5. (Currently Amended) The antimicrobial lens of claim 21 wherein the monomer of Formula I is present at about 0.01 to about 1.5 weight percent.
6. (Currently Amended) The antimicrobial lens of claim 21 wherein the monomer of Formula I is present at about 0.01 to about 0.8 weight percent.
7. (Currently Amended) The antimicrobial lens of claim 21 wherein the monomer of Formula I is present at about 0.01 to about 0.3 weight percent.

8. **(Currently Amended)** The antimicrobial lens of claim 21 wherein the monomer of Formula I is present at about 0.01 to about 0.2 weight percent.
9. **(Currently Amended)** The antimicrobial lens of claim 21 wherein the monomer of Formula I is present at about 0.01 to about 0.09 weight percent.
10. **(Currently Amended)** The antimicrobial lens of claim 21 wherein the lens is a silicone hydrogel.
11. **(Currently Amended)** The antimicrobial lens of claim 21 wherein, the lens is etafilcon A, balafilcon, A, aquafilcon A, lenefilcon A, or lotrafilcon A.
12. **(Canceled)**
13. **(Canceled)**
14. **(Currently Amended)** The antimicrobial lens of claim 21 wherein silver is present at about 20 ppm to about 1,200 ppm.
15. **(Currently Amended)** The antimicrobial lens of claim 21 wherein silver is present at about 20 ppm to about 600 ppm.
16. **(Currently Amended)** The antimicrobial lens of claim 21 wherein silver is present at about 20 ppm to about 150 ppm.
17. **(Currently Amended)** The antimicrobial lens of claim 21 wherein silver is present at about 20 ppm to about 75 ppm.
18. **(Canceled)**

19. **(Currently Amended)** The antimicrobial lens of claim ~~18~~1 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula I is present at about 0.01 to about 1.5 weight percent.
20. **(Canceled)**
21. **(Currently Amended)** The antimicrobial lens of claim ~~20~~1 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula I is present at about 0.01 to about 1.5 weight percent.
22. **(Original)** The antimicrobial lens of claim 21 wherein the lens is etafilcon A.
23. **(Original)** The antimicrobial lens of claim 21 wherein the lens is aquafilcon A.
24. **(Original)** The lens of claim 23 wherein silver is present at about 20 ppm to about 75 ppm.
25. **(Withdrawn)** The antimicrobial lens of claim 1 comprising a polymer comprising a monomer of Formula II.
26. **(Withdrawn)** The antimicrobial lens of claim 25 wherein,
a is 1-2,
 R^{11} is hydrogen or C_{1-3} alkyl,
 R^{12} is sulfonic acid, carboxylic acid, phosphonic acid, C_{1-6} alkyldisulfide,
 C_{1-6} alkylsulfide, phenyldisulfide, substituted phenyldisulfide or $NH-R^{13}$,
 R^{13} is thio C_{1-6} alkylcarbonyl.
27. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the monomer of Formula II is selected from the group consisting of



28. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the lens is a soft contact lens.
29. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the monomer of Formula II is present at about 0.01 to about 1.5 weight percent.
30. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the monomer of Formula II is present at about 0.01 to about 0.8 weight percent.
31. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the monomer of Formula II is present at about 0.01 to about 0.3 weight percent.
32. **(Withdrawn)** The antimicrobial lens of claim 25 wherein the lens is etafilcon A, balafilcon A, aquafilcon A, lenefilcon A, or lotrafilcon A.
33. **(Withdrawn)** The antimicrobial lens of claim 25 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula II is present at about 0.01 to about 1.5 weight percent.
34. **(Withdrawn)** The antimicrobial lens of claim 33 wherein the lens is etafilcon A or aquafilcon A.

35. (Withdrawn) The antimicrobial lens of claim 1 comprising a polymer comprising a monomer of Formula III.

36. (Withdrawn) The antimicrobial lens of claim 35 wherein,

p is 1-3;

b is 1-2;

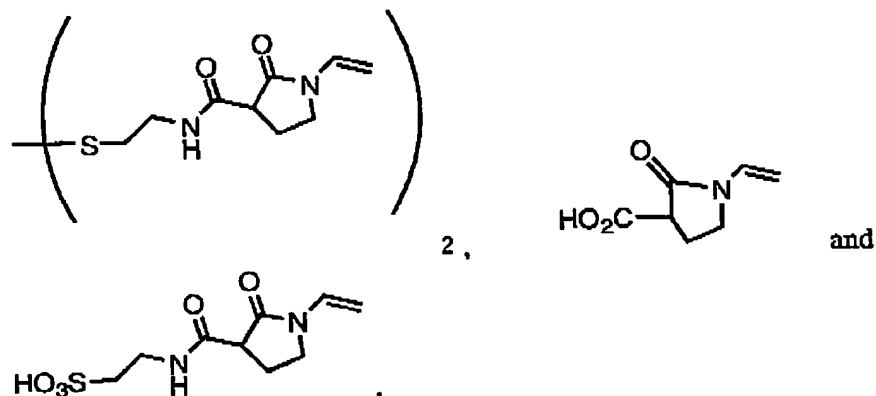
R²¹ is hydrogen;

R²² is sulfonic acid, phosphonic acid, carboxylic acid, thioC₁₋₆alkylcarbonyl, thioC₁₋₆alkylaminocarbonyl, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyldisulfide, substituted phenyldisulfide,

H₃OS-(CH₂)₁₋₆NHC(O) or

(HO)₂(O)P-(CH₂)₁₋₆NHC(O)-.

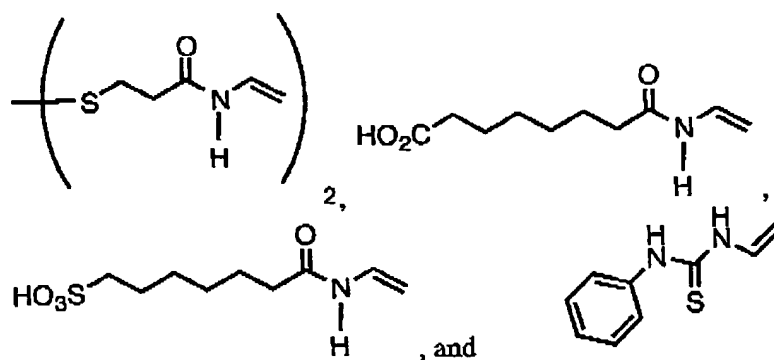
37. (Withdrawn) The antimicrobial lens of claim 35 wherein the monomer of Formula III is selected from the group consisting of



38. (Withdrawn) The antimicrobial lens of claim 35 wherein the lens is a soft contact lens.

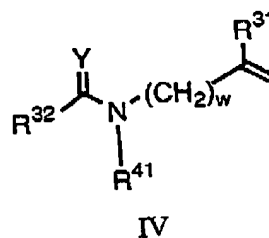
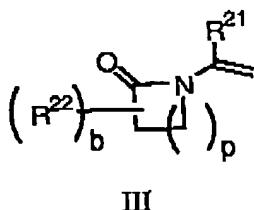
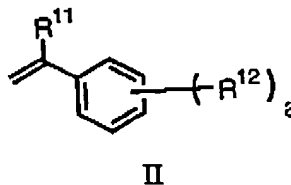
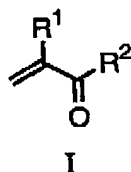
39. (Withdrawn) The antimicrobial lens of claim 35 wherein the monomer of Formula III is present at about 0.01 to about 1.5 weight percent.

40. **(Withdrawn)** The antimicrobial lens of claim 35 wherein the monomer of Formula III is present at about 0.01 to about 0.8 weight percent.
41. **(Withdrawn)** The antimicrobial lens of claim 35 wherein the monomer of Formula III is present at about 0.01 to about 0.3 weight percent.
42. **(Withdrawn)** The antimicrobial lens of claim 35 wherein, the lens is etafilcon A, balafilcon, A, aquafilcon A, lenefilcon A, or lotrafilcon A.
43. **(Withdrawn)** The antimicrobial lens of claim 35 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula III is present at about 0.01 to about 1.5 weight percent.
44. **(Withdrawn)** The antimicrobial lens of claim 43 wherein the lens is etafilcon A or aquafilcon A.
45. **(Withdrawn)** The antimicrobial lens of claim 1 comprising a polymer comprising a monomer of Formula IV.
46. **(Withdrawn)** The antimicrobial lens of claim 45 wherein,
w is 0-1;
 R^{31} is hydrogen;
 R^{32} is amine, C_{1-3} alkylamine, phenylamine, substituted phenylamine;
thio C_{1-3} alkylcarbonyl;
 R^{41} is hydrogen.
47. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the monomer of Formula IV is selected from the group consisting of



48. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the lens is a soft contact lens.
49. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the monomer of Formula IV is present at about 0.01 to about 1.5 weight percent.
50. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the monomer of Formula IV is present at about 0.01 to about 0.8 weight percent.
51. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the monomer of Formula IV is present at about 0.01 to about 0.3 weight percent.
52. **(Withdrawn)** The antimicrobial lens of claim 45 wherein the lens is etafilcon A, balafilcon, A, aquafilcon A, lenefilcon A, or lotrafilcon A.
53. **(Withdrawn)** The antimicrobial lens of claim 45 wherein silver is present at about 20 ppm to about 150 ppm and the monomer of Formula IV is present at about 0.01 to about 1.5 weight percent.
54. **(Withdrawn)** The antimicrobial lens of claim 53 wherein the lens is etafilcon A or aquafilcon A.

55. (Withdrawn) A method of producing an antimicrobial lens comprising, silver^{VI} and a polymer comprising a monomer of Formula I, II, III or IV



wherein

R^1 is hydrogen or C_{1-6} alkyl;

R^2 is $-OR^3$, $-NH-R^3$, $-S-(CH_2)_d-R^3$, or $-(CH_2)_d-R^3$, wherein

d is 0-8;

R^3 is substituted C_{1-6} alkyl

where the alkyl substituents are selected from one or more members of the group consisting of carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C_{1-6} alkyldisulfide, C_{1-6} alkylsulfide, phenyldisulfide, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted C_{1-6} alkylurea, substituted phenylurea, substituted C_{1-6} alkylthiourea, and substituted phenylthiourea

wherein the C_{1-6} alkyldisulfide, phenyldisulfide, C_{1-6} alkylurea, C_{1-6} alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl,

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carboxylic acid, sulfonic acid, phosphonic acid, amine,
amidine, acetamide, and nitrile;

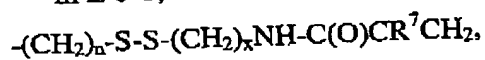


wherein R^4 , R^5 , and R^6 are independently selected from the
group consisting of hydrogen, halogen, hydroxyl, and

C_{1-6} alkyl,

q is 1-6, and

m is 0-6;



wherein R^7 is hydrogen or C_{1-6} alkyl,

n is 1-6, and

x is 1-6;



wherein R^8 , R^9 , and R^{10} are independently selected from the
group consisting of hydrogen, halogen, hydroxyl, and

C_{1-6} alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;
4-methylpiperazin-1-yl;
substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl,

N-(aminotriazolyl)sulfonyl,
N-(amino-4-methylpiperidinyl)sulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidinyl)carbonyl,
N-(amino-4-methylpiperazinyl)carbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidinyl) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
phenylthiourea substituents are selected from the group
consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,
carboxylic acid, sulfonic acid, phosphonic acid, amino,
amidine, acetamide, and nitrile;

a is 1-5;

R^{11} is hydrogen or C_{1-6} alkyl;

R^{12} is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, acetamide, thio C_{1-6} alkylcarbonyl, C_{1-6} alkyldisulfide, C_{1-6} alkylsulfide, phenyl disulfide, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, $-OR^{13}$, $-NH-R^{13}$, $-S-(CH_2)_d-R^{13}$, $-(CH_2)_d-R^{13}$, $-C(O)NH-(CH_2)_d-R^{13}$, $-C(O)-(CH_2)_d-R^{13}$, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted C_{1-6} alkylurea, substituted phenylurea, substituted phenylthiourea or substituted C_{1-6} alkylthiourea wherein the substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

where

d is 0-8;

R^{13} is thio C_{1-6} alkylcarbonyl;

substituted C_{1-6} alkyl

where the alkyl substituents are selected from one or more members of the group consisting of hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C_{1-6} alkyldisulfide, C_{1-6} alkylsulfide, phenyldisulfide, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted C_{1-6} alkylurea, substituted phenylurea, substituted C_{1-6} alkylthiourea and substituted phenylthiourea

wherein the C_{1-6} alkyldisulfide, phenyldisulfide, C_{1-6} alkylurea, C_{1-6} alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R^{14} , R^{15} , and R^{16} are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C_{1-6} alkyl,

q is 1-6, and

m is 0-6;

$-(CH_2)_n-S-S-(CH_2)_x-NH-C(O)CR^{17}CH_2$,

where R^{17} is hydrogen or C_{1-6} alkyl,

n is 1-6, and

x is 1-6;

$-(CR^{18}R^{19})_t-(CHR^{20})_u-P(O)(OH)_2$

where R^{18} , R^{19} , and R^{20} are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C_{1-6} alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;

4-methylpiperazin-1-yl;

substituted phenyl;

substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl

wherein the substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl, N-(aminotriazolyl)sulfonyl, N-(amino-4-methylpiperidinyl)sulfonyl, N-(amino-4-methylpiperazinyl)sulfonyl,

N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidinyl)carbonyl,
N-(amino-4-methylpiperazinyl)carbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidinyl) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
phenylthiourea substituents are selected from the group
consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,
carboxylic acid, sulfonic acid, phosphonic acid, amine,
amidine, acetamide, and nitrile;

b is 1-5;

p is 1-5;

R²¹ is hydrogen;

R^{22} is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, thio C_{1-6} alkylcarbonyl, thio C_{1-6} alkylaminocarbonyl, C_{1-6} alkyldisulfide, phenyldisulfide, $-C(O)NH(CH_2)_{1-6}-SO_3H$, $-C(O)NH(CH_2)_{1-6}-P(O)(OH)_2$, $-OR^{23}$, $-NH-R^{23}$, $-C(O)NH-(CH_2)_d-R^{23}$, $-S-(CH_2)_d-R^{23}$, $-(CH_2)_d-R^{23}$, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted C_{1-6} alkylurea, substituted, C_{1-6} alkylthiourea substituted phenylurea or substituted phenylthiourea wherein the substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile,

where

d is 0-8;

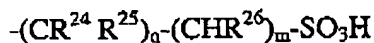
R^{23} is thio C_{1-6} alkylcarbonyl,

C_{1-6} alkyl,

substituted C_{1-6} alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C_{1-6} alkyldisulfide, C_{1-6} alkylsulfide, phenyldisulfide, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted C_{1-6} alkylurea, substituted phenylurea, substituted C_{1-6} alkylthiourea, and substituted phenylthiourea

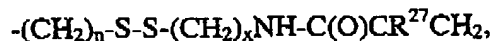
wherein the C_{1-6} alkyldisulfide, phenyldisulfide, C_{1-6} alkylurea, C_{1-6} alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R^{24} , R^{25} , and R^{26} are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C_{1-6} alkyl,

q is 1-6, and

m is 0-6



where R^{27} is hydrogen or C_{1-6} alkyl,

n is 1-6, and

x is 1-6;



where R^{28} , R^{29} , and R^{30} are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C_{1-6} alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;

4-methylpiperazin-1-yl;

substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl, N-(aminotriazolyl)sulfonyl, N-(amino-4-methylpiperidinyl)sulfonyl,

N-(amino-4-methylpiperazinyl)sulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidinyl)carbonyl,
N-(amino-4-methylpiperazinyl)carbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidinyl) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
phenylthiourea substituents are selected from the group
consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,
carboxylic acid, sulfonic acid, phosphonic acid, amine,
amidine, acetamide, and nitrile;

w is 0-1;

Y is oxygen or sulfur;

R³¹ is hydrogen or C₁₋₆alkyl;

R^{32} is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, thio C_{1-6} alkylcarbonyl, thio C_{1-6} alkylaminocarbonyl, $-C(O)NH-(CH_2)_d-R^{33}$, $-O-R^{33}$, $-NH-R^{33}$, $-S-(CH_2)_d-R^{33}$, $-(CH_2)_d-R^{33}$, C_{1-6} alkyldisulfide, phenyldisulfide, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, C_{1-6} alkylamine, phenylamine, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted phenylurea, substituted C_{1-6} alkylamine, substituted phenylamine, substituted phenylthiourea, substituted C_{1-6} alkylurea or substituted C_{1-6} alkylthiourea wherein the substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile

where

d is 0-8;

R^{33} is thio C_{1-6} alkylcarbonyl,

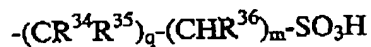
C_{1-6} alkyl,

substituted C_{1-6} alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C_{1-6} alkyldisulfide, C_{1-6} alkylsulfide, phenyldisulfide, urea, C_{1-6} alkylurea, phenylurea, thiourea, C_{1-6} alkylthiourea, phenylthiourea, substituted C_{1-6} alkyldisulfide, substituted phenyldisulfide, substituted C_{1-6} alkylurea, substituted phenylurea, substituted C_{1-6} alkylthiourea or substituted phenylthiourea

wherein the C_{1-6} alkyldisulfide, phenyldisulfide, C_{1-6} alkylurea, C_{1-6} alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C_{1-6} alkyl, halo C_{1-6} alkyl, halogen, hydroxyl,

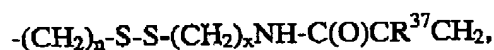
carboxylic acid, sulfonic acid, phosphonic acid, amine,
amidine, acetamide, and nitrile;



where R^{34} , R^{35} , and R^{36} are independently selected from the
group consisting of hydrogen, halogen, hydroxyl, and
 C_{1-6} alkyl,

q is 1-6, and

m is 0-6;



where R^{37} is hydrogen or C_{1-6} alkyl,

n is 1-6, and

x is 1-6;



where R^{38} , R^{39} , and R^{40} are independently selected from the
group consisting of hydrogen, halogen, hydroxyl, and
 C_{1-6} alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;
4-methylpiperazin-1-yl;
substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl,

N-(aminotriazolyl)sulfonyl,
N-(amino-4-methylpiperidinyl)sulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidinyl)carbonyl,
N-(amino-4-methylpiperazinyl)carbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidinyl) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
phenylthiourea substituents are selected from the group
consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,
carboxylic acid, sulfonic acid, phosphonic acid, amine,
amidine, acetamide, and nitrile;

R⁴¹ is hydrogen, C₁₋₆alkyl, phenyl, C₁₋₆alkylcarbonyl, phenylcarbonyl, substituted C₁₋₆alkyl, substituted phenyl, substituted C₁₋₆alkylcarbonyl or substituted phenylcarbonyl,

wherein

the substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile.

where the method comprises the steps of

- (a) preparing a lens comprising a monomer of Formula I, II, III or IV and
- (b) treating said lens with a silver solution.

56. (Withdrawn) The method of claim 55 wherein the silver solution is aqueous silver nitrate having a concentration of about 0.1 µg/mL to about .3 g/mL.

57. (Withdrawn) The method of claim 55 wherein, treating comprises soaking the lens comprising a polymer of a monomer of Formula I, II, III or IV with a silver solution.

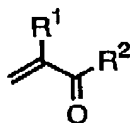
58. (Withdrawn) The method of claim 55 wherein, the lens comprising a polymer of a monomer of Formula I, II, III or IV is soaking for about 2 minutes to about 2 hours.

59. (Withdrawn) The method of claim 55 wherein, treating comprise: storing the lens comprising a polymer of a monomer of Formula I, II, III or IV with a silver solution for about 20 minutes to about 5 years.

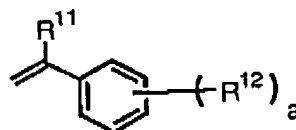
60. (Withdrawn) An antimicrobial lens comprising silver and a polymer comprising a binding monomer wherein said antimicrobial lens can reversibly bind silver.

61. (Withdrawn) The antimicrobial lens of claim 60 wherein the binding monomer has a stability constant of about 2 to about 7.3.

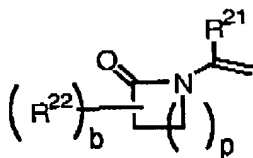
62. (Withdrawn) A lens case comprising silver and a polymer comprising a monomer of Formula I, II, III or IV



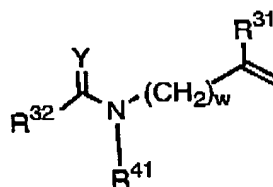
I



II



III



IV

wherein

R^1 is hydrogen or C_{1-6} alkyl;

R^2 is $-\text{OR}^3$, $-\text{NH}-\text{R}^3$, $-\text{S}-(\text{CH}_2)_d-\text{R}^3$, or $-(\text{CH}_2)_d-\text{R}^3$, wherein

d is 0-8;

R^3 is substituted C_{1-6} alkyl

where the alkyl substituents are selected from one or more members of the group consisting of carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C_{1-6} alkyldisulfide, C_{1-6} alkylsulfide, phenyldisulfide, urea,

C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea, substituted C₁₋₆alkylthiourea, and substituted phenylthiourea

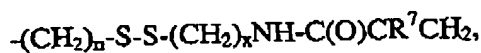
wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



wherein R⁴, R⁵, and R⁶ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

q is 1-6, and

m is 0-6;



wherein R⁷ is hydrogen or C₁₋₆alkyl,

n is 1-6, and

x is 1-6;



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wherein R^8 , R^9 , and R^{10} are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C_{1-6} alkyl, t is 1-6, and u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;

4-methylpiperazin-1-yl;

substituted phenyl;

substituted benzyl;

substituted pyridinyl;

substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more
members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl,
halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic
acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,
N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl,
N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,
N-(aminopyrazine)carbonyl,
N-(2-aminopyrimidine)phosphonyl,
N-(2-aminopyridine)phosphonyl,
N-(aminopyrazine)phosphonyl,
N-(aminobenzimidazolyl)sulfonyl,

N-(aminobenzothiazolyl)sulfonyl,
N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,
N-(aminothiazolyl)sulfonyl,
N-(aminotriazolyl)sulfonyl,
N-(amino-4-methylpiperidinyl)sulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidinyl)carbonyl,
N-(amino-4-methylpiperazinyl)carbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidinyl) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,

phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted C₁₋₆alkylthiourea, substituted phenylurea, and substituted phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

a is 1-5;

R¹¹ is hydrogen or C₁₋₆alkyl;

R¹² is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, acetamide, thioC₁₋₆alkylcarbonyl, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, -OR¹³, -NH-R¹³, -S-(CH₂)_d-R¹³, -(CH₂)_d-R¹³, -C(O)NH-(CH₂)_d-R¹³, -C(O)-(CH₂)_d-R¹³, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea, substituted phenylthiourea or substituted C₁₋₆alkylthiourea wherein the substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

where

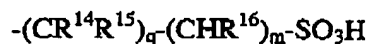
d is 0-8;

R^{13} is thioC₁₋₆alkylcarbonyl;

substituted C₁₋₆alkyl

where the alkyl substituents are selected from one or more members of the group consisting of hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea, substituted C₁₋₆alkylthiourea and substituted phenylthiourea

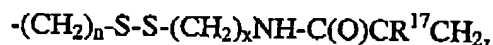
wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R^{14} , R^{15} , and R^{16} are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

q is 1-6, and

m is 0-6;



where R^{17} is hydrogen or C_{1-6} alkyl,

n is 1-6, and

x is 1-6;



where R^{18} , R^{19} , and R^{20} are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and

C_{1-6} alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;
4-methylpiperazin-1-yl;
substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl

wherein the substituents are selected from one or more
members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl,
halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic
acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,
N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl,

N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,
N-(aminopyrazine)carbonyl,
N-(2-aminopyrimidine)phosphonyl,
N-(2-aminopyridine)phosphonyl,
N-(aminopyrazine)phosphonyl,
N-(aminobenzimidazolyl)sulfonyl,
N-(aminobenzothiazolyl)sulfonyl,
N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,
N-(aminothiazolyl)sulfonyl,
N-(aminotriazolyl)sulfonyl,
N-(amino-4-methylpiperidiny)lsulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidiny)lsulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,

N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidiny) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
phenylthiourea substituents are selected from the group
consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,
carboxylic acid, sulfonic acid, phosphonic acid, amine,
amidine, acetamide, and nitrile;

b is 1-5;

p is 1-5;

R²¹ is hydrogen;

R²² is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid,
thioC₁₋₆alkylcarbonyl, thioC₁₋₆alkylaminocarbonyl, C₁₋₆alkyldisulfide,
phenyldisulfide, -C(O)NH(CH₂)₁₋₆-SO₃H, -C(O)NH(CH₂)₁₋₆-P(O)(OH)₂, -C(O)R²³,

-NH-R²³, -C(O)NH-(CH₂)_d-R²³, -S-(CH₂)_d-R²³, -(CH₂)_d-R²³, urea, C₁₋₆alkyl urea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted, C₁₋₆alkylthiourea substituted phenylurea or substituted phenylthiourea wherein the substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile,

where

d is 0-8;

R²³ is thioC₁₋₆alkylcarbonyl,

C₁₋₆alkyl,

substituted C₁₋₆alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, halo C₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea, substituted C₁₋₆alkylthiourea, and substituted phenylthiourea

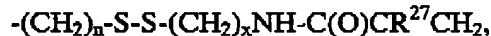
wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R²⁴, R²⁵, and R²⁶ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

q is 1-6, and

m is 0-6



where R²⁷ is hydrogen or C₁₋₆alkyl,

n is 1-6, and

x is 1-6;



where R²⁸, R²⁹, and R³⁰ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;
pyridinyl;
pyrimidinyl;
pyrazinyl;
benzimidazolyl;
benzothiazolyl;
benzotriazolyl;
naphthaloyl;
quinolinyl;
indolyl;
thiadiazolyl;
triazolyl;
4-methylpiperidin-1-yl;
4-methylpiperazin-1-yl;
substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;

substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl, N-(aminotriazolyl)sulfonyl, N-(amino-4-methylpiperidinyl)sulfonyl, N-(amino-4-methylpiperazinyl)sulfonyl,

N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidinyl)carbonyl,
N-(amino-4-methylpiperazinyl)carbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidinyl) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and

phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

w is 0-1;

Y is oxygen or sulfur;

R³¹ is hydrogen or C₁₋₆alkyl;

R³² is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid,

thioC₁₋₆alkylcarbonyl, thioC₁₋₆alkylaminocarbonyl, -C(O)NH-(CH₂)_d-R³³,

-O-R³³, -NH-R³³, -S-(CH₂)_d-R³³, -(CH₂)_d-R³³, C₁₋₆alkyldisulfide,

phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,

phenylthiourea, C₁₋₆alkylamine, phenylamine, substituted C₁₋₆alkyldisulfide,

substituted phenyldisulfide, substituted phenylurea, substituted C₁₋₆alkylamine,

substituted phenylamine, substituted phenylthiourea, substituted C₁₋₆alkylurea

or substituted C₁₋₆alkylthiourea wherein the substituents are selected from the

group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid,

sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile

where

d is 0-8;

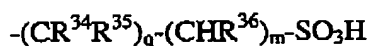
R³³ is thioC₁₋₆alkylcarbonyl,

C₁₋₆alkyl,

substituted C₁₋₆alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, halo C₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea, substituted C₁₋₆alkylthiourea or substituted phenylthiourea

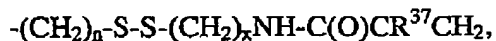
wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R³⁴, R³⁵, and R³⁶ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

q is 1-6, and

m is 0-6;



where R^{37} is hydrogen or C_{1-6} alkyl,

n is 1-6, and

x is 1-6;



where R^{38} , R^{39} , and R^{40} are independently selected from the

group consisting of hydrogen, halogen, hydroxyl, and

C_{1-6} alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;

indolyl;

thiadiazolyl;

triazolyl;

4-methylpiperidin-1-yl;
4-methylpiperazin-1-yl;
substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more
members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl,
halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic
acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl,
N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl,

N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,
N-(aminopyrazine)carbonyl,
N-(2-aminopyrimidine)phosphonyl,
N-(2-aminopyridine)phosphonyl,
N-(aminopyrazine)phosphonyl,
N-(aminobenzimidazolyl)sulfonyl,
N-(aminobenzothiazolyl)sulfonyl,
N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,
N-(aminothiazolyl)sulfonyl,
N-(aminotriazolyl)sulfonyl,
N-(amino-4-methylpiperidiny)lsulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidiny)lsulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,

N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidinyl) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

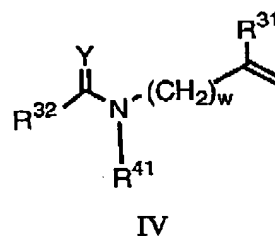
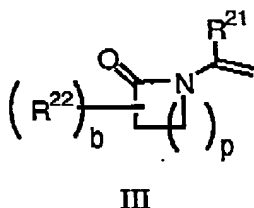
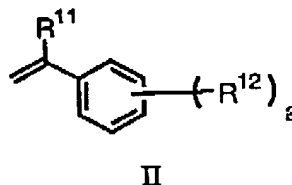
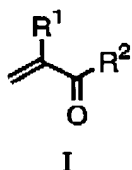
wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
phenylthiourea substituents are selected from the group
consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl,
carboxylic acid, sulfonic acid, phosphonic acid, amine,
amidine, acetamide, and nitrile;

R⁴¹ is hydrogen, C₁₋₆alkyl, phenyl, C₁₋₆alkylcarbonyl, phenylcarbonyl,
substituted C₁₋₆alkyl, substituted phenyl, substituted C₁₋₆alkylcarbonyl or
substituted phenylcarbonyl,

wherein

the substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile.

63. (Withdrawn) A method of reducing the adverse effects associated with microbial production in the eye of a mammal comprising providing an antimicrobial lens, wherein said lens comprises, silver and a polymer comprising a monomer of the Formula I, II, III or IV



wherein

R¹ is hydrogen or C₁₋₆alkyl;

R² is -OR³, -NH-R³, -S-(CH₂)_d-R³, or -(CH₂)_d-R³, wherein

d is 0-8;

R³ is substituted C₁₋₆alkyl

where the alkyl substituents are selected from one or more members of the group consisting of carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted

phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea, substituted C₁₋₆alkylthiourea, and substituted phenylthiourea

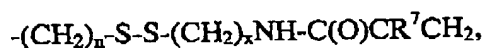
wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



wherein R⁴, R⁵, and R⁶ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

q is 1-6, and

m is 0-6;



wherein R⁷ is hydrogen or C₁₋₆alkyl,

n is 1-6, and

x is 1-6;



wherein R⁸, R⁹, and R¹⁰ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;
benzotriazolyl;
naphthaloyl;
quinolinyll;
indolyl;
thiadiazolyl;
triazolyl;
4-methylpiperidin-1-yl;
4-methylpiperazin-1-yl;
substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyll;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl,

N-(2-aminopyrimidine)phosphonyl,
N-(2-aminopyridine)phosphonyl,
N-(aminopyrazine)phosphonyl,
N-(aminobenzimidazolyl)sulfonyl,
N-(aminobenzothiazolyl)sulfonyl,
N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,
N-(aminothiazolyl)sulfonyl,
N-(aminotriazolyl)sulfonyl,
N-(amino-4-methylpiperidinyl)sulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidinyl)carbonyl,
N-(amino-4-methylpiperazinyl)carbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidinyl) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

a is 1-5;

R¹¹ is hydrogen or C₁₋₆alkyl;

R¹² is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, acetamide, thioC₁₋₆alkylcarbonyl, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, -OR¹³, -NH-R¹³, -S-(CH₂)_d-R¹³, -(CH₂)_d-R¹³, -C(O)NH--(CH₂)_d-R¹³, -C(O)--(CH₂)_d-R¹³, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea, substituted phenylthiourea or substituted C₁₋₆alkylthiourea wherein the substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

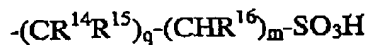
where

d is 0-8;

R¹³ is thioC₁₋₆alkylcarbonyl;
substituted C₁₋₆alkyl

where the alkyl substituents are selected from one or more members of the group consisting of hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea, substituted C₁₋₆alkylthiourea and substituted phenylthiourea

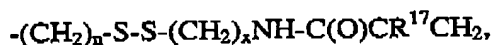
wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R¹⁴, R¹⁵, and R¹⁶ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

q is 1-6, and

m is 0-6;



where R¹⁷ is hydrogen or C₁₋₆alkyl,

n is 1-6, and

x is 1-6;



where R¹⁸, R¹⁹, and R²⁰ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;
indolyl;
thiadiazolyl;
triazolyl;
4-methylpiperidin-1-yl;
4-methylpiperazin-1-yl;
substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl

wherein the substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl,

N-(aminobenzimidazolyl)sulfonyl,
N-(aminobenzothiazolyl)sulfonyl,
N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,
N-(aminothiazolyl)sulfonyl,
N-(aminotriazolyl)sulfonyl,
N-(amino-4-methylpiperidiny)lsulfonyl,
N-(amino-4-methylpiperaziny)lsulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidiny)lcarbonyl,
N-(amino-4-methylpiperaziny)lcarbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidiny)l phosphonyl,
N-(amino-4-methylpiperaziny)l phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
phenylthiourea substituents are selected from the group

consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

b is 1-5;

p is 1-5;

R²¹ is hydrogen;

R²² is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, thioC₁₋₆alkylcarbonyl, thioC₁₋₆alkylaminocarbonyl, C₁₋₆alkyldisulfide, phenyldisulfide, -C(O)NH(CH₂)₁₋₆-SO₃H, -C(O)NH(CH₂)₁₋₆-P(O)(OH)₂, -OR²³, -NH-R²³, -C(O)NH-(CH₂)₄-R²³, -S-(CH₂)₄-R²³, -(CH₂)₄-R²³, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted, C₁₋₆alkylthiourea substituted phenylurea or substituted phenylthiourea wherein the substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile,

where

d is 0-8;

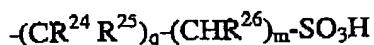
R²³ is thioC₁₋₆alkylcarbonyl,

C₁₋₆alkyl,

substituted C₁₋₆alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, halo C₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea, substituted C₁₋₆alkylthiourea, and substituted phenylthiourea

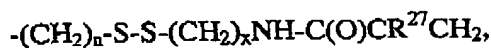
wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R²⁴, R²⁵, and R²⁶ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

q is 1-6, and

m is 0-6



where R²⁷ is hydrogen or C₁₋₆alkyl,

n is 1-6, and

x is 1-6;



where R²⁸, R²⁹, and R³⁰ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;

naphthaloyl;

quinolinyl;
indolyl;
thiadiazolyl;
triazolyl;
4-methylpiperidin-1-yl;
4-methylpiperazin-1-yl;
substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl,

N-(aminobenzimidazolyl)sulfonyl,
N-(aminobenzothiazolyl)sulfonyl,
N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,
N-(aminothiazolyl)sulfonyl,
N-(aminotriazolyl)sulfonyl,
N-(amino-4-methylpiperidinyl)sulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidinyl)carbonyl,
N-(amino-4-methylpiperazinyl)carbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidinyl) phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide,
C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and
phenylthiourea substituents are selected from the group

consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

w is 0-1;

Y is oxygen or sulfur;

R³¹ is hydrogen or C₁₋₆alkyl;

R³² is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, thioC₁₋₆alkylcarbonyl, thioC₁₋₆alkylaminocarbonyl, -C(O)NH-(CH₂)_d-R³³, -O-R³³, -NH-R³³, -S-(CH₂)_d-R³³, -(CH₂)_d-R³³, C₁₋₆alkyldisulfide, phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, C₁₋₆alkylamine, phenylamine, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted phenylurea, substituted C₁₋₆alkylamine, substituted phenylamine, substituted phenylthiourea, substituted C₁₋₆alkylurea or substituted C₁₋₆alkylthiourea wherein the substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile

where

d is 0-8;

R³³ is thioC₁₋₆alkylcarbonyl,

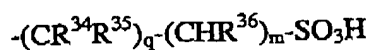
C₁₋₆alkyl,

substituted C₁₋₆alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyldisulfide, urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea, phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted phenyldisulfide, substituted C₁₋₆alkylurea, substituted phenylurea,

substituted C₁₋₆alkylthiourea or substituted phenylthiourea

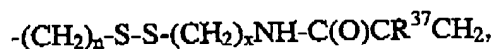
wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R³⁴, R³⁵, and R³⁶ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

q is 1-6, and

m is 0-6;



where R³⁷ is hydrogen or C₁₋₆alkyl,

n is 1-6, and

x is 1-6;



where R³⁸, R³⁹, and R⁴⁰ are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C₁₋₆alkyl,

t is 1-6, and

u is 0-6;

phenyl;

benzyl;

pyridinyl;

pyrimidinyl;

pyrazinyl;

benzimidazolyl;

benzothiazolyl;

benzotriazolyl;
naphthaloyl;
quinolinyl;
indolyl;
thiadiazolyl;
triazolyl;
4-methylpiperidin-1-yl;
4-methylpiperazin-1-yl;
substituted phenyl;
substituted benzyl;
substituted pyridinyl;
substituted pyrimidinyl;
substituted pyrazinyl;
substituted benzimidazolyl;
substituted benzothiazolyl;
substituted benzotriazolyl;
substituted naphthaloyl;
substituted quinolinyl;
substituted indolyl;
substituted thiadiazolyl;
substituted triazolyl;
substituted 4-methylpiperidin-1-yl; or
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl,

N-(2-aminopyridine)phosphonyl,
N-(aminopyrazine)phosphonyl,
N-(aminobenzimidazolyl)sulfonyl,
N-(aminobenzothiazolyl)sulfonyl,
N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,
N-(aminothiazolyl)sulfonyl,
N-(aminotriazolyl)sulfonyl,
N-(amino-4-methylpiperidiny)lsulfonyl,
N-(amino-4-methylpiperazinyl)sulfonyl,
N-(aminobenzimidazolyl)carbonyl,
N-(aminobenzothiazolyl)carbonyl,
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,
N-(aminothiazolyl)carbonyl,
N-(aminotriazolyl)carbonyl,
N-(amino-4-methylpiperidiny)lcarbonyl,
N-(amino-4-methylpiperazinyl)carbonyl,
N-(2-aminobenzimidazolyl)phosphonyl,
N-(2-aminobenzothiazolyl)phosphonyl,
N-(2-aminobenzotriazolyl)phosphonyl,
N-(2-aminoindolyl)phosphonyl,
N-(2-aminothiazolyl)phosphonyl,
N-(2-aminotriazolyl)phosphonyl,
N-(amino-4-methylpiperidiny)l phosphonyl,
N-(amino-4-methylpiperazinyl) phosphonyl, acetamide, nitrile,
thiol, C₁₋₆alkyldisulfide, C₁₋₆alkylsulfide, phenyl disulfide,
urea, C₁₋₆alkylurea, phenylurea, thiourea, C₁₋₆alkylthiourea,
phenylthiourea, substituted C₁₋₆alkyldisulfide, substituted
phenyldisulfide, substituted C₁₋₆alkylurea, substituted
C₁₋₆alkylthiourea, substituted phenylurea, and substituted
phenylthiourea

wherein the C₁₋₆alkyldisulfide, phenyldisulfide, C₁₋₆alkylurea, C₁₋₆alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

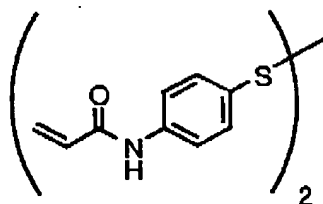
R⁴¹ is hydrogen, C₁₋₆alkyl, phenyl, C₁₋₆alkylcarbonyl, phenylcarbonyl, substituted C₁₋₆alkyl, substituted phenyl, substituted C₁₋₆alkylcarbonyl or substituted phenylcarbonyl,

wherein

the substituents are selected from the group consisting of C₁₋₆alkyl, haloC₁₋₆alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile.

64. **(Withdrawn)** An antimicrobial lens comprising silver, wherein said lens has sufficient movement on the eye of a patient.
65. **(Withdrawn)** The lens of claim 64 having about 50 to about 100 percent movement.
66. **(Withdrawn)** The lens of claim 64 having about 75 to about 100 percent movement.
67. **(Withdrawn)** The lens of claim 64 having about 90 to about 100 percent movement.
68. **(Withdrawn)** An antimicrobial lens comprising silver, wherein said lens inhibits microbial production by at least 25%.
69. **(Withdrawn)** The lens of claim 68 wherein said lens inhibits microbial production by at least about 50% to at least about 99%.

70. (Withdrawn) The lens of claim 68 wherein said lens inhibits microbial production by at least about 80% to at least about 99%.
71. (Withdrawn) An antimicrobial lens comprising silver, wherein said lens has sufficient movement on the eye of a patient and said lens inhibits microbial production by at least 25%.
72. (Withdrawn) The lens of claim 71 having about 50% to about 100% movement and said lens inhibits microbial production by 75% to about 100%.
73. (New) The lens of claim 1 wherein said silver reversibly binds to said monomer.
74. (New) An antimicrobial lens comprising silver and a polymer comprising a monomer of Formula I



75. (New) An antimicrobial lens comprising silver and a polymer comprising a monomer of Formula I

